PHILOSOPHICAL TRANSACTIONS.

For the Months of *January* and *February*.
February 9. $16\frac{73}{74}$.

The CONTENTS.

An Account of ſome uncommon Mineral Subſtances, found in Engliſh *Coal- and Iron-Mines. A Deſcription of certain figured Stones like Plants, ſuppoſed by ſome to be Plants petrified. A Repreſentation of an Icy mountain in* Helvetia, *formerly deſcribed. A Letter giving notice to the Public of a New way of preſerving the Hulls of Ships from Worms,* &c. *The Natural Hiſtory of Muſick. An Account of two Books*: I. *MUSICA SPECULATIVA del* Mengoli. II. Georg. Wedelii *Specimen de Sale Volatili Plantarum. An Advertiſement concerning a Remedy to prevent the Rot in Sheep, at this preſent time much complain'd of in* England.

An Account of two uncommon Mineral Subſtances, *found in ſome Coal- and Iron-Mines of* England; *as it was given by the Intelligent and Learned Mr.* Jeſſop *of Bromhal in Yorkſhire to the Ingenious Mr.* Liſter, *and by him communicated to the Publiſher in a letter of* January 7. $16\frac{73}{74}$.

SIR,

THat this Letter may be the more acceptable to you, I ſhall communicate ſome *Excerpta*, taken out of the Letters, which that Inquiſitive and Learn'd Gentleman Mr. *Jeſſop* is pleaſed to honour me with. I will give, (ſaith he) the beſt anſwer I can in ſhort to the Queſtions, you put to me in your laſt.

1. The *Fungus ſubterraneus*, I ſent you a large quantity of, was gotten in a Rocky Lime-ſtone ground, on a Common about two miles diſtant from *Caſtleton* in the Peake of Darbyſhire, 15 or 16 yards deep, in the *Old man* (as they call a Mine formerly wrought and ſtopt up) covered with earth, that had either fallen or was thrown in. There is no coal-bed that is known of within five or ſix miles of the place.

Of this *Fungus* by Mr. *Jeſſops* procurement I received (ſaith Mr. *Liſter*) a good quantity; and yet I am not able to ſay, in what form it grows. It does not ſeem to me to have any conſtant ſhape; at leſt the pieces that I receiv'd are much like Peats or Turff, cut up in the high moors, both in the ſooty colour and inward ſubſtance; this only is more clammy and tough, and dries not. And ſome of this fungous ſubſtance is very ſoft and like gelly. In and about the more ſolid pieces, (of which I have ſome, half a foot ſquare,) are many big lumps of a *bituminous* ſubſtance. This *bitumen* is very inflammable like Roſin; it is very light, it breaks firm, and ſhines like good Aloes; and for color, it is not much unlike it, ſave that it is more dark-color'd and purpliſh; yet there is much of it of a dark green color. We diſtill'd a parcel of it, which yielded us an Acidulous limpid water; then, a white liquor, which was, I gueſs, from ſome of the Oily parts precipitate. And in the laſt place, a copious yellow Oyl, not unlike that of *Succinum* or Pitch. In the neck of the Retort we could diſcern no Volatil Salt, as in the like proceſs upon Amber. Whether this ows its Original to a Vegetable, or is truly a concret Mineral Juyce and a foſſil Bitume, I forbear to determine. I have not read of any ſuch fungous Earth, in which *bitumen* naturally grows and adheres: And the finding of it in an Old mine doth much favour the firſt opinion of being a Vegetable ſubſtance; *either* the very ſubſtance of the propps of Wood, they make uſe of in lining and ſupporting the Grooves, thus alter'd, *or* certain *fungus*'s growing out of them. That Birch, (of which there is great plenty and hath been vaſt woods all theſe mountanous parts of *England* over) will yield a *bitumen*, as limpid as the ſap is which runs from it by tapping, if we now had the skill to extract it, *Pliny* is very expreſs, *l.* 16. *c.* 18. *Bitumen ex Betula Galli excoquunt.* And more-over it is certain, that much of that wood, if not all, which is dugg up in the high moors of *Craven*, and which the people there call and uſe for *Candle-wood*, is no other than *Birch*, as it appears from the grain and bark; and yet this wood kindleth flames, and exudats a roſin, which makes many pronounce it very *Firr-wood.* Whatever this *bitumen* is, which this *Fungus ſubterraneus* yields, it much differs from the *Aſphaltum* of the Shopps; and you may command

mand a *Specimen* of it, that it may be better examin'd by more skilful Naturaliſts.

2. There is an other Mineral Juyce in theſe parts of *England*, which I have much inquir'd after, and have longed to ſee; and now I am likely to be ſatisfied, as you may think by Mr. *Jeſſops* words: *Captain Wain*, (ſaith he) *a diligent and knowing perſon in Mines, gave me a White Liquor, reſembling Cream both in colour and conſiſtence, which he found in great quantities at the bottom of a Coal-pit, 49 yards deep, which I reſerve for you.* But this is not all the information that hath been given me about this White Liquor. Mr. *George Planton*, a curious and very intelligent perſon, writes thus to me from *Sheriff Hales* in Shropſhire: *I ſhall trouble you with an Obſervation, I lately met with in our Iron-mines, eſpecially that which the Country people here call the* White Mine, *which yields the beſt Iron-Stone. The Miners do commonly, upon the breaking of a Stone, meet with a great quantity of a whitiſh milky Liquor, incloſed in the Center of it; they ſometimes find a Hogshead contain'd in one cavity. 'Tis in taſte ſweetiſh; only it hath a Vitriolick and Iron-like twang with it.*

So far Mr. *Liſter* and his friends, from whoſe generoſity we have received a parcel of each of theſe ſubſtances for further examination.

A Deſcription of certain Stones figured like Plants, and by ſome Obſerving men eſteemed to be Plants petrified: Communicated to the Publiſher, by the ſame Mr. Liſter, *from* York *Novemb.* 4th. 1673.

SIR,

IN this paper I ſend you an Account of ſome of the Parts of certain *Stones* figured like Plants; which *Agricola* (5° *Foſſilium*) calls *Trochitæ*, and the compound ones *Entrochi*; we in Engliſh, St. *Cutberds beads.*

Agricola will have them akin for ſubſtance to the *Lapides Judaici*; and, indeed, theſe are of an opaque and dark coloured Sparr; though I have of them from ſome parts of *England* of a *white Sparr* or *Cawke*, as our Miners call it: They all break like Flint, poliſhed and ſhining.

Put into Vinegar (*ſaith he*) they buble: *Atque etiam reperiuntur*